5.13 VISUAL RESOURCES

In this section visual resources for the proposed PEF Expansion are addressed. The environmental consequences of developing the PEF Expansion are also discussed, along with Applicant's proposal to apply the applicable Conditions of Certification from the existing PEF to the PEF Expansion.

The PEF Expansion consists of a nominal 160 MW simple cycle combustion turbine generator. The PEF Expansion area will be approximately two acres located entirely within the existing PEF 31-acre site boundary. The PEF Expansion requires no modification to the existing PEF offsite linear facilities (e.g., electric transmission line, fuel gas supply line, or water supply line). The PEF Expansion will use the existing PEF administration and control, warehouse and shop, and water treatment buildings. Site access and onsite roadways are common with the existing PEF. Figure 3.1-1 of this application depicts the new facilities required for the PEF Expansion project within the footprint of the existing PEF.

The only changes to visual resources for the PEF Expansion will result from the addition of a new combustion turbine stack with a maximum height of 131 feet that is less than the existing stacks that are 150 feet in height.

5.13.1 Affected Environment

The affected environment for the PEF Expansion is as described in 99-AFC-7. The Visual Resources Section 5.13 of 99-AFC-7 is included for reference as part of Attachment L of this application.

In evaluating the impact to visual resources, the addition of the stack is considered a small addition to the existing PEF. This analysis utilizes the methodology contained in Section 5.13 of 99-AFC-7, and included for reference as part of Attachment L of this application.

During the processing of 99-AFC-7, CEC staff concluded that the most prominant key observation point (KOP 2) of the PEF site is from Interstate 5, approximately 6.5 miles west of the PEF site. Views from Edmonston Pumping Plant Road (KOP 1) and Laval Road (KOP 3) were determined to be less important given the relatively few number of viewers, the surrounding visual context, and the view blockage by other structures and vegetation. Refer to Section 5.13 of 99-AFC-7 included for reference as part of Attachment L of this application.

5.13.2 Environmental Consequences

The discussion of environmental consequences from 99-AFC-7 remains unchanged with the exception of evaluating the impacts associated with the new stack. Refer to Section 5.13 of

99-AFC-7 included as part of Attachment L1 of this application. During the Discovery Phase of 99-AFC-7, CEC staff presented several data requests relating to the potential impacts of visible plumes from the PEF. Visible plumes would be created by condensation of water vapor in the plumes of moist air from the cooling towers, and plumes of moist combustion products from the HRSG stacks. In response to the CEC Data Requests, the Applicant conducted an investigation into where and how plumes from the PEF HRSG stacks and cooling towers could be seen in the vicinity of the project, with special attention given to potential impacts to KOP 2. The investigation concluded that significant visual impacts are not expected to result from visible plumes emanating from PEF. This information is included as part of Attachment N in the section called Visual Plume Analysis.

5.13.2.1 Evaluation from Key Observation Point 2 – Interstate 5

The original photo simulation from KOP 2 is shown in Figure 5.13-7 of 99-AFC-7, included as part of Attachment L of this application. Figure 3.1-8 of this application provides a simulation of all four stacks from KOP 2. The new stack can be seen located slightly to the left but within the general context of the existing stacks that are aligned obliquely to the viewer. The addition of this stack will not be a perceptible addition to the typical viewer from Interstate 5. In order to provide analysis consistent with 99-AFC-7, a visual simulation (Figure 5.13-1 of this application) was generated for the PEF Expansion. This figure shows the cumulative simulation both the existing PEF and the PEF Expansion. This simulation was created using the same methodology used in the visual simulations conducted for 99-AFC-7 and included for reference as part of Attachment L of this application.

Since the existing facility, including the visual plumes, was determined not to create a significant impact, this almost imperceptible addition of the combustion turbine stack does not change the original finding that the impacts are less than significant.

5.13.2.2 Evaluation from Key Observation Point 1 – Edmonston Pumping Plant Road

The original photo simulation from KOP 1 is shown in Figure 5.13-6 of 99-AFC-7, included as part of Attachment L of this application. Figure 5.13-2 of this application provides a simulation from KOP 1 from Edmonston Pumping Plant Road with the proposed PEF Expansion facilities appearing to the left of the existing PEF. This simulation was made at the same location as the original simulation and uses the same evaluation methodology. While the new stack is visible from KOP 1, it does not significantly alter the skyline or obscure objects in the background. There are few public travelers on this road and the immediate visual setting is one of large power and water projects.

Since the PEF Expansion is a simple cycle combustion turbine, no additional plumes will be generated, therefore, a plume evaluation was not conducted for this application.

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A The existing view to the east from Key Observation Point #2.

B The same view showing a photo simulation of the proposed power plant addition.

Pastoria Energy Facility Expansion	**Source:** Cannon and Associates	**Figure 5.13-1.** KEY OBSERVATION POINT #2	April 2005

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A The existing view to the north from Key Observation Point #1.

B The same view showing a photo simulation of the proposed power plant addition.

Pastoria Energy Facility Expansion	**Source:** Cannon and Associates	**Figure 5.13-2.** KEY OBSERVATION POINT #1	April 2005

Thus, since the existing PEF, including the visual plumes, was determined not to create a significant impact, the small addition of the new stack within this context will not significantly increase the visual impact.

5.13.2.3 Evaluation from Key Observation Point 3 – Laval Road

The original photo simulation from KOP 3 is shown in Figure 5.13-8 of 99-AFC-7, included as part of Attachment L of this application. Figure 5.13-3 of this application provides a simulation of the existing PEF and the proposed PEF Expansion from KOP 3. The new simulation location, while not exact to the original photographs (given the flooding and washed out roads of this past February 2005), does approximate the view and distance from the existing PEF site. The proposed stack is shown on the simulation slightly to the right of the existing stacks that are aligned east to west and approximately 2.75 miles to the south of the viewer. The addition of this stack will not be a perceptible addition to the typical viewer along Laval Road.

Since the PEF Expansion is a simple cycle combustion turbine, no additional plumes will be generated, therefore, a plume evaluation was not conducted for this application.

There are very few public travelers along this portion of Laval Road. Since the original facility, including the visual plumes, was determined not to create a significant impact, this almost imperceptible addition of the stack does not change the original finding that the impacts are less than significant.

5.13.3 Mitigation Measures

The Applicant proposes to apply the applicable Conditions of Certification for the existing PEF to the PEF Expansion. The Conditions of Certification for 99-AFC-7 are included in Section 9.0 of this application. With the implementation of the applicable Conditions of Certification, no significant unavoidable adverse visual resource impacts are anticipated due to construction or operation of the PEF Expansion.

5.13.4 LORS Compliance

The PEF Expansion will comply with all applicable LORS related to visual resources. A complete list of the applicable LORS for visual resources is included in Section 7.0 LORS of this application.

5.13.5 References

The visual resource references for the existing PEF are applicable to the PEF Expansion. The references from Section 5.13 of 99-AFC-7 are included as part of Attachment N of this application.

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A The existing view to the south from Key Observation Point #3.

B The same view showing a photo simulation of the proposed power plant addition.

Pastoria Energy Facility Expansion	**Source:** Cannon and Associates	**Figure 5.13-3.** KEY OBSERVATION POINT #3	April 2005